

Science, Grades 4, 8, and 11

Chart 1: 4, 8, 11 SC

The chart below shows the National Percentile Ranks for grades 4, 8, and 11.

- In 2001, grade 4 scored an NPR of 71%, grade 8 an NPR of 64%, and grade 11 an NPR of 70%.
- In 2006, the NPRs for grades 4, 8, and 11 are 72%, 64%, and 68% respectively.

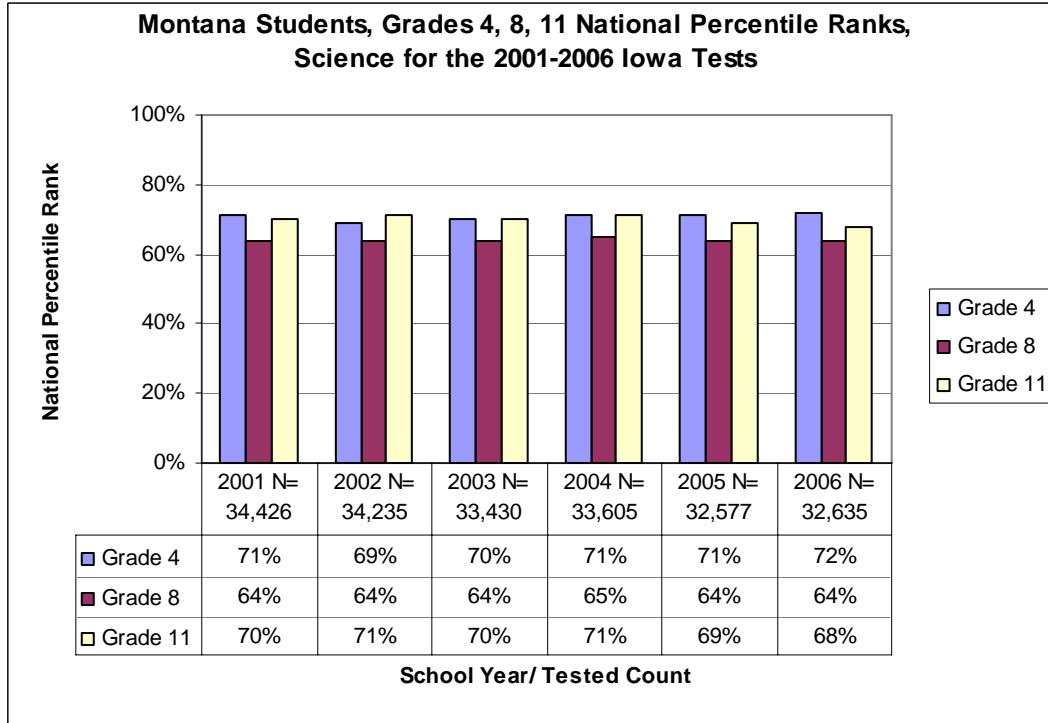


Table 1: 4, 8, 11 SC

Science National Percentile Rank for each disaggregation across Montana in 2001-2006.

Groups	Grade 4						Grade 8						Grade 11					
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
All Students	71%	69%	70%	71%	71%	72%	64%	64%	64%	65%	64%	64%	70%	71%	70%	71%	69%	68%
Students Without Disabilities	72%	71%	72%	73%	73%	74%	67%	68%	67%	68%	68%	68%	72%	73%	73%	73%	72%	71%
Students With Disabilities	50%	46%	51%	55%	55%	53%	36%	34%	35%	37%	34%	34%	32%	34%	34%	34%	31%	31%
Female Students	70%	68%	70%	70%	70%	71%	65%	66%	66%	66%	66%	66%	72%	73%	73%	72%	71%	71%
Male Students	72%	70%	70%	72%	72%	73%	63%	63%	62%	64%	62%	63%	67%	68%	68%	69%	67%	64%
Native American Students	50%	49%	48%	52%	51%	53%	42%	41%	43%	43%	43%	42%	51%	48%	46%	47%	43%	45%
White Students	73%	72%	73%	74%	74%	75%	67%	68%	67%	68%	67%	67%	71%	72%	73%	73%	71%	70%
Students on Free/Reduced Lunch	59%	58%	60%	61%	62%	63%	53%	53%	52%	55%	53%	53%	58%	58%	59%	58%	56%	55%
LEP*	NA	35%	33%	41%	35%	39%	NA	32%	29%	30%	30%	30%	NA	40%	41%	37%	35%	33%

* LEP 2001 data were incomplete.

Table 2: 4, 8, 11 SC

Science: The table below shows the percentage of students for each disaggregation scoring in each performance category in grades 4, 8, and 11 for the 2001-2006 Iowa Tests.

Groups/Year		Grade 4				Grade 8				Grade 11			
		Adv Stanines 8 9	Pro Stanines 5 7	NP Stanine 4	Nov Stanines 1- 3	Adv Stanines 8 9	Pro Stanines 5 7	NP Stanine 4	Nov Stanines 1- 3	Adv Stanines 8 9	Pro Stanines 5 7	NP Stanine 4	Nov Stanines 1- 3
All Students	2001	22%	60%	10%	8%	18%	60%	12%	10%	21%	60%	9%	10%
	2002	21%	60%	10%	9%	18%	59%	12%	11%	23%	58%	9%	10%
	2003	22%	60%	10%	8%	17%	60%	12%	11%	22%	59%	9%	10%
	2004	23%	61%	10%	6%	17%	62%	12%	9%	23%	58%	9%	10%
	2005	17%	63%	13%	7%	17%	60%	12%	12%	22%	57%	9%	12%
	2006	18%	63%	12%	7%	17%	59%	12%	12%	21%	56%	10%	13%
Students Without Disabilities	2001	24%	61%	9%	7%	20%	62%	11%	7%	22%	62%	8%	8%
	2002	22%	61%	10%	7%	19%	62%	11%	8%	25%	60%	7%	8%
	2003	23%	61%	9%	7%	19%	62%	11%	8%	24%	61%	8%	8%
	2004	24%	62%	9%	5%	19%	65%	10%	7%	25%	60%	7%	8%
	2005	18%	64%	12%	6%	19%	62%	10%	8%	24%	59%	8%	9%
	2006	19%	64%	11%	6%	19%	63%	10%	8%	23%	58%	9%	10%
Students With Disabilities	2001	8%	53%	20%	19%	3%	37%	24%	37%	2%	39%	21%	38%
	2002	6%	51%	20%	23%	3%	34%	25%	38%	2%	39%	23%	36%
	2003	8%	53%	20%	19%	2%	39%	23%	36%	3%	39%	22%	36%
	2004	9%	56%	19%	16%	3%	38%	27%	32%	3%	39%	22%	36%
	2005	7%	52%	23%	17%	3%	37%	23%	37%	3%	34%	24%	39%
	2006	5%	51%	23%	20%	2%	35%	24%	40%	2%	34%	20%	44%
Female Students	2001	21%	61%	10%	8%	16%	65%	11%	8%	21%	64%	8%	7%
	2002	19%	62%	11%	8%	17%	63%	11%	9%	23%	62%	8%	7%
	2003	21%	62%	10%	7%	17%	63%	12%	8%	22%	63%	8%	7%
	2004	20%	63%	10%	6%	16%	65%	12%	7%	22%	62%	8%	8%
	2005	15%	65%	13%	7%	17%	63%	11%	9%	22%	61%	8%	9%
	2006	15%	65%	12%	7%	17%	63%	11%	9%	22%	59%	8%	10%
Male Students	2001	24%	59%	9%	8%	20%	55%	12%	12%	21%	57%	10%	12%
	2002	22%	58%	11%	9%	18%	56%	13%	13%	23%	55%	9%	13%
	2003	22%	59%	10%	9%	17%	57%	13%	13%	22%	55%	10%	13%
	2004	25%	59%	10%	6%	18%	58%	12%	12%	24%	54%	9%	13%
	2005	19%	61%	13%	7%	18%	56%	12%	14%	22%	53%	11%	14%
	2006	20%	61%	12%	7%	18%	55%	12%	15%	20%	52%	11%	17%
Native American Students	2001	8%	52%	20%	20%	4%	46%	21%	29%	7%	55%	18%	19%
	2002	6%	55%	20%	19%	4%	44%	24%	28%	7%	57%	13%	23%
	2003	6%	52%	21%	21%	5%	48%	21%	25%	6%	54%	17%	23%
	2004	8%	56%	20%	16%	4%	51%	21%	24%	6%	55%	17%	22%
	2005	4%	54%	24%	18%	6%	46%	20%	27%	4%	52%	17%	27%
	2006	7%	50%	26%	17%	4%	47%	21%	27%	5%	49%	18%	27%
White Students	2001	20%	60%	18%	2%	20%	62%	11%	8%	22%	61%	8%	9%
	2002	23%	62%	8%	7%	20%	62%	10%	8%	25%	59%	7%	9%
	2003	24%	61%	9%	6%	19%	62%	11%	8%	24%	59%	8%	8%
	2004	25%	62%	9%	5%	19%	63%	11%	7%	25%	58%	8%	9%
	2005	19%	64%	11%	5%	19%	62%	10%	9%	24%	58%	8%	10%
	2006	19%	65%	10%	6%	19%	61%	10%	9%	23%	57%	9%	12%
Students on Free/ Reduced Lunch	2001	14%	52%	18%	16%	8%	55%	18%	18%	11%	59%	14%	16%
	2002	12%	60%	14%	14%	8%	55%	18%	19%	13%	58%	12%	17%
	2003	12%	61%	15%	13%	8%	55%	18%	19%	12%	60%	12%	16%
	2004	13%	62%	15%	10%	9%	58%	16%	16%	13%	57%	13%	17%
	2005	10%	60%	19%	11%	9%	56%	17%	19%	12%	55%	14%	19%
	2006	10%	60%	18%	12%	9%	54%	17%	20%	11%	54%	13%	21%
LEP *2001 LEP data were incomplete	2001	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na
	2002	1%	46%	24%	29%	1%	33%	30%	36%	4%	49%	16%	31%
	2003	2%	38%	27%	33%	0%	32%	24%	44%	2%	52%	18%	27%
	2004	3%	49%	26%	22%	1%	31%	26%	42%	3%	46%	22%	29%
	2005	1%	39%	29%	31%	1%	31%	23%	45%	3%	39%	23%	35%
	2006	2%	39%	34%	25%	1%	31%	28%	40%	1%	36%	25%	37%

Table 3: 4, 8, 11 SC

Customized Skills Reports: Montana Science Standards tested in the 2001-2006 Iowa Tests

Standard			Design, conduct, evaluate and communicate investigations	Understand physical and chemical systems	Understand the structures and functions of living things	Understand Earth's systems and interactions	Understand the impact of science and technology on society
Grade 4	# of Items		19	5*	10	8	2*
	Percent Correct	01	60%	69%	67%	67%	58%
		02	60%	68%	66%	66%	58%
		03	61%	67%	66%	68%	57%
		04	62%	67%	67%	69%	58%
		05	62%	68%	67%	68%	57%
		06	63%	68%	67%	69%	56%
Grade 8	# of Items		28	14	7	8*	3*
	Percent Correct	01	68%	65%	59%	59%	55%
		02	67%	65%	58%	59%	55%
		03	67%	65%	58%	58%	54%
		04	68%	65%	59%	58%	54%
		05	68%	64%	58%	58%	54%
		06	68%	64%	58%	58%	55%
Grade 11	# of Items		45	9*	5*	1*	1*
	Percent Correct	01	56%	53%	59%	64%	61%
		02	57%	53%	59%	63%	60%
		03	56%	53%	59%	64%	61%
		04	57%	52%	60%	64%	60%
		05	55%	53%	58%	62%	60%
		06	55%	52%	58%	62%	60%
* The Iowa Tests measure the knowledge dimension of the Montana Standard, but do not adequately measure the application aspect.							

Tables 4a and 4b: 11 SC

ACT Science Reasoning results for the high school graduating classes of 2001-2006

	Average Score All National	Average Score All Montana	Average Score White Montana	Average Score American Indian Montana
2001	21.0	21.9	22.1	18.4
2002	20.8	21.8	21.9	18.25
2003	20.8	21.7	22.0	18.5
2004	20.9	21.7	22.0	18.1
2005	20.9	21.8	22.1	17.9
2006	20.9	21.8	22.0	18.1

Number of Montana graduating classes of 2001-2006 participating in the ACT

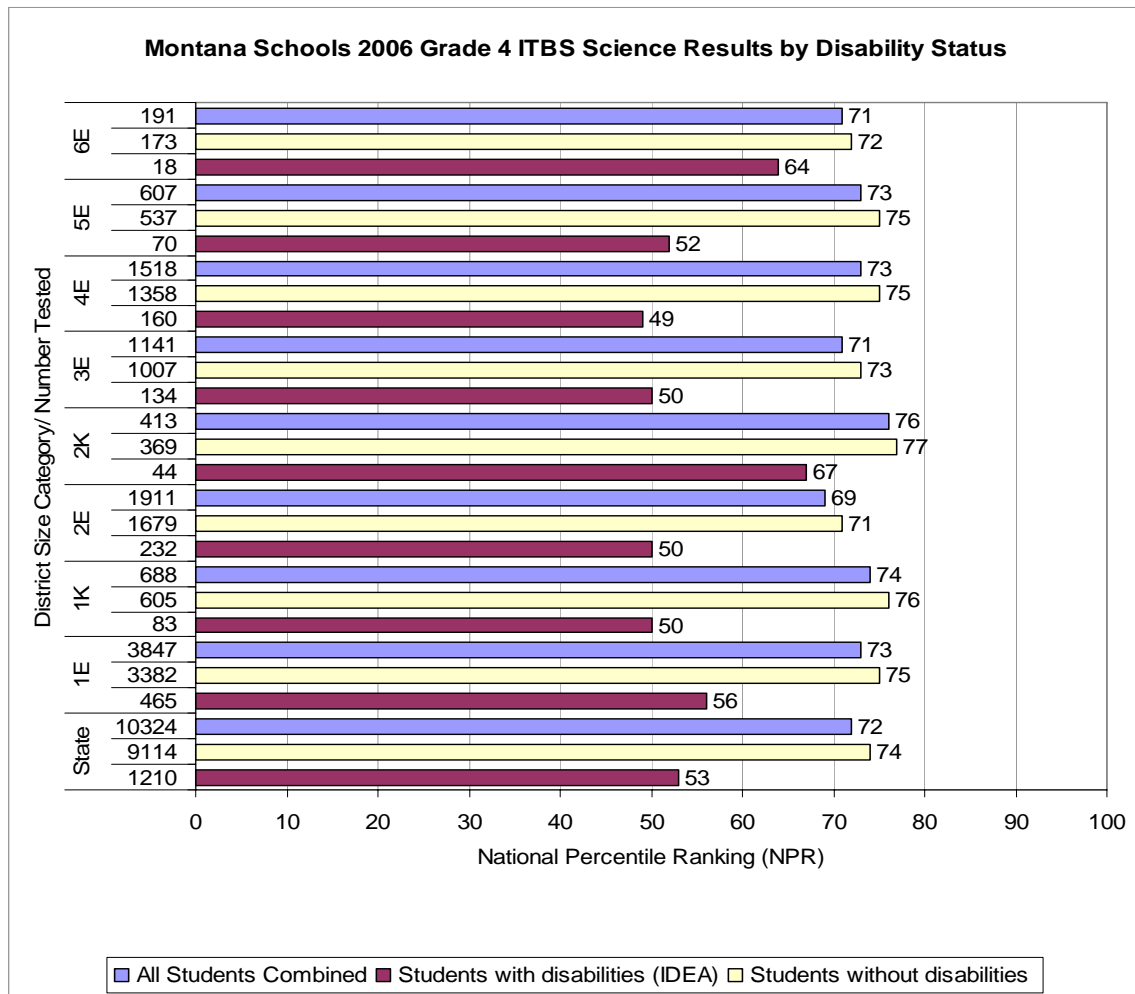
	Total Montana Students	White Montana	American Indian Montana
2001	6,641	5,699	319
2002	6,368	5,460	300
2003	6,470	5,514	282
2004	6,255	5,259	300
2005	6,178	5,154	312
2006	6,033	4,896	269

Table 5: 4, 8, 11 SC

NAEP data from 1996, 2000, and 2005 are included to add the picture of student achievement in Science. Although NAEP data give us another perspective to the picture of Montana students tested in these years, it is not a statewide assessment, but rather a representative random sampling of the students in 4th and 8th grades in the years identified.

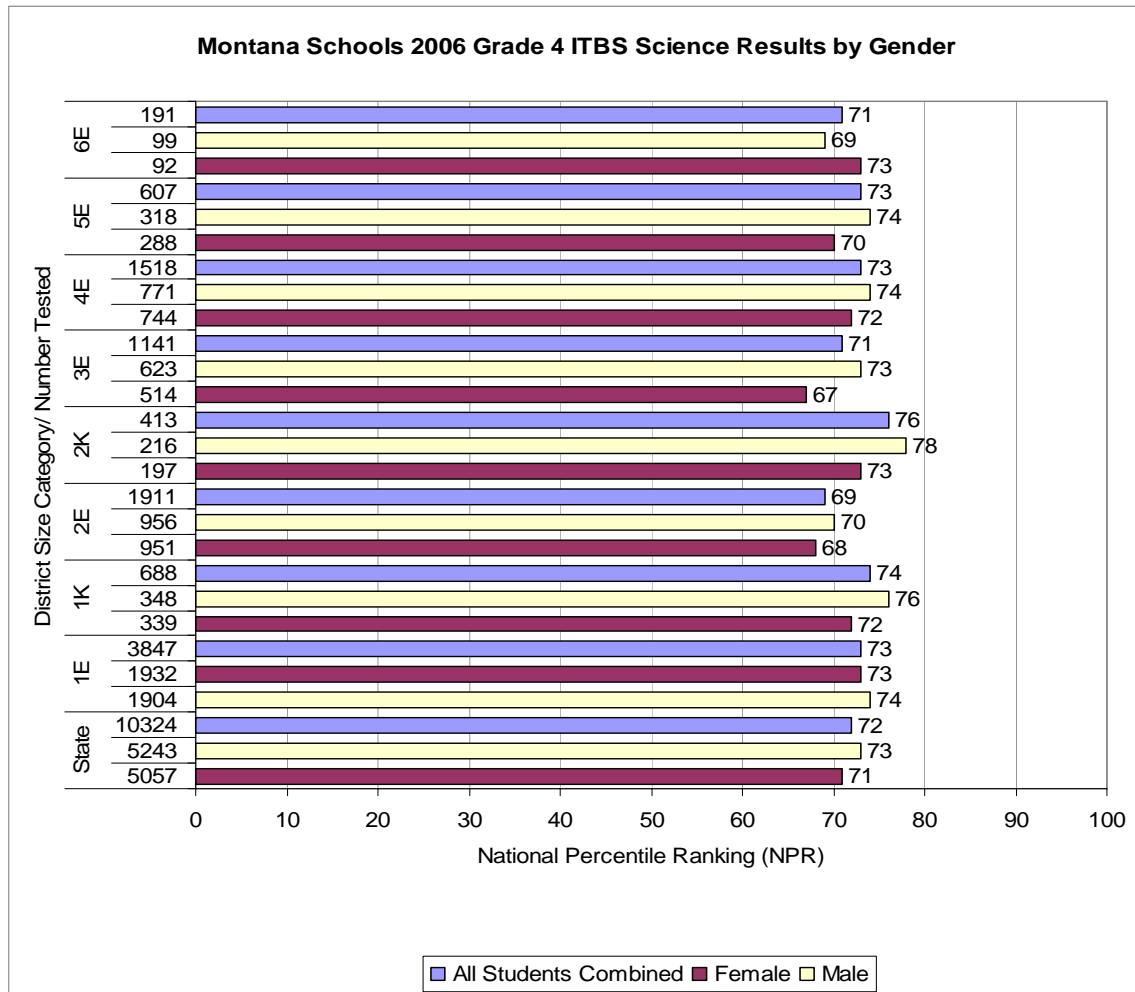
Grade:Year	Average Score					
	All National	White National	American Indian National	All Montana	White Montana	American Indian Montana
4: 2000	150	160	140	160	164 (86%)	145 (63%)
4: 2005	149	161	139	160	163 (84%)	139 (50%)
8: 1996	150	159	148	162	166 (83%)	139 (44%)
8: 2000	151	162	134	165	168 (84%)	143 (49%)
8: 2005	147	159	134	162	165 (81%)	135 (42%)

Chart 4.1 SC



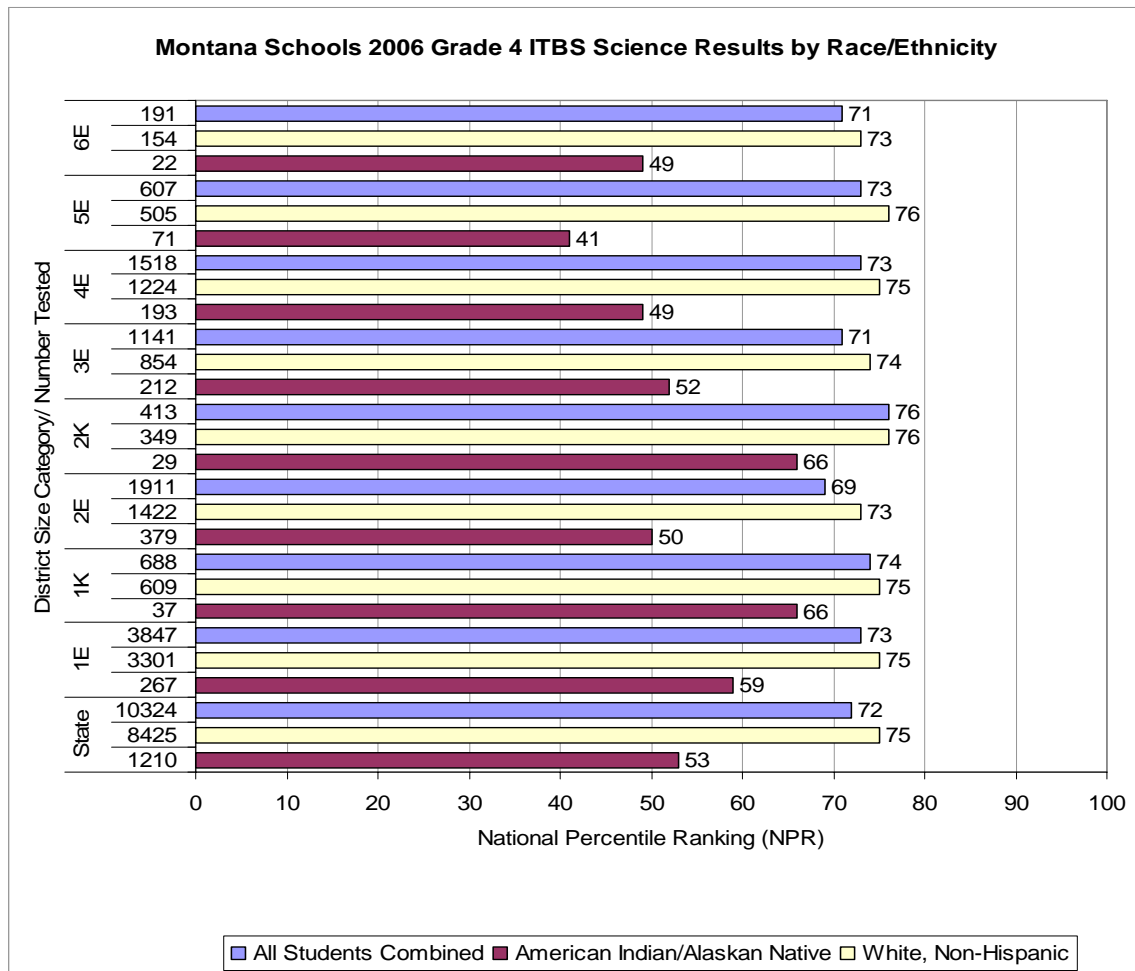
1. All students
 - The Science NPR for all Montana grade 4 students is 72%, one percentage point above 2005.
2. Students without disabilities
 - Statewide, the NPR for students without disabilities is 74%, one percentage point above 2005. That number is stable across the state with all district size categories plus or minus 1-3 percentage points.
3. Students with disabilities
 - Statewide, the NPR for students with disabilities is 53%, two percentage points below 2005. That number is relatively stable across the state with most district size categories plus or minus 1-4 percentage points except 2K and 6E where the number of students test is too small for comparisons.
4. Comparisons
 - Statewide, Montana students without disabilities scored 21 percentage points above students with disabilities, 74% and 53% respectively.

Chart 4.2 SC



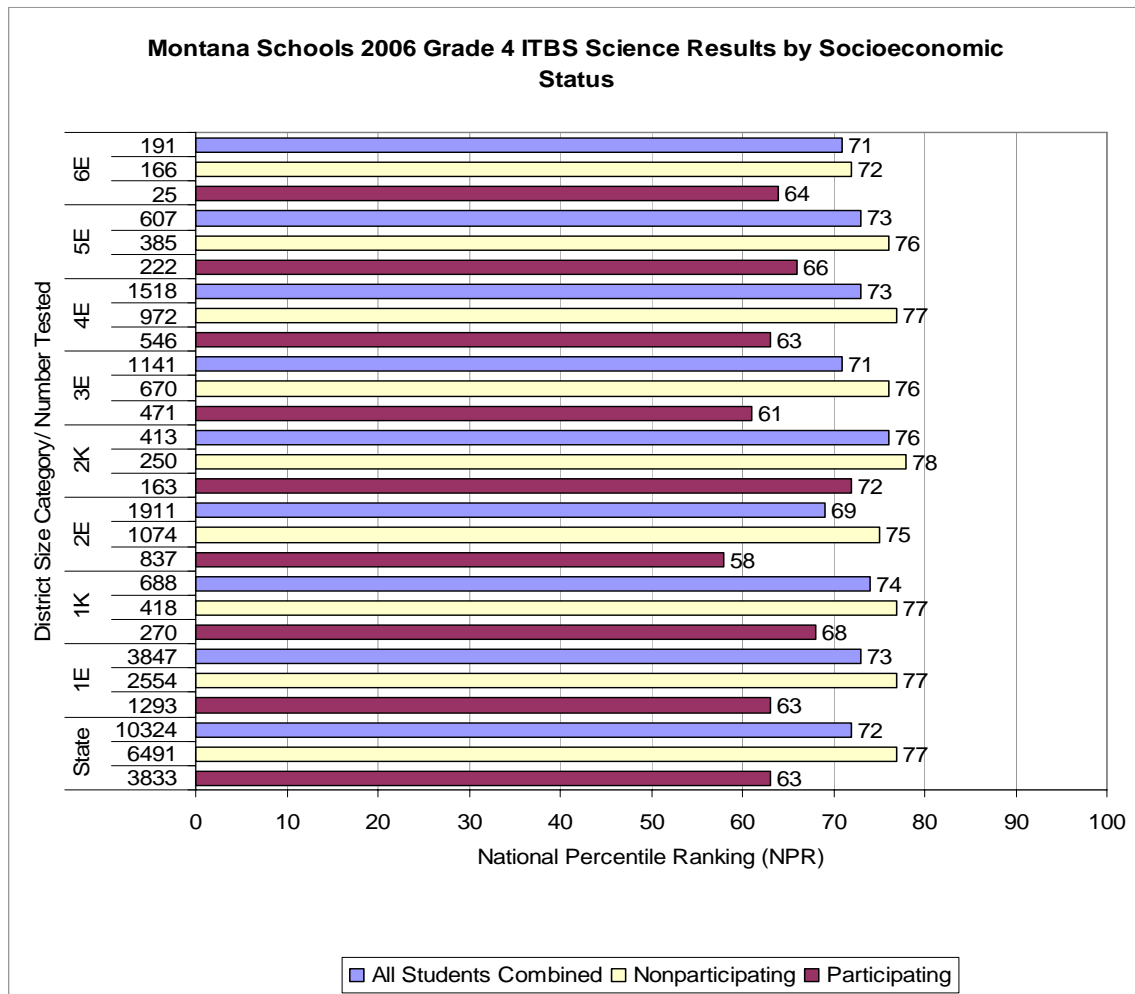
1. All students
 - The Science NPR for all Montana grade 4 students is 72%.
2. Female students
 - Statewide, the NPR for female students is 71%, one percentage point above 2005. That number is stable across the state with all district size categories plus or minus 1-4 percentage points.
3. Male students
 - Statewide, the NPR for male students is 73%, one percentage point above 2005. That number is stable across the state with all district size categories plus or minus 1-5 percentage points.
4. Comparisons
 - Statewide, male students scored two percentage points higher than female students, 73% and 71% respectively.

Chart 4.3 SC



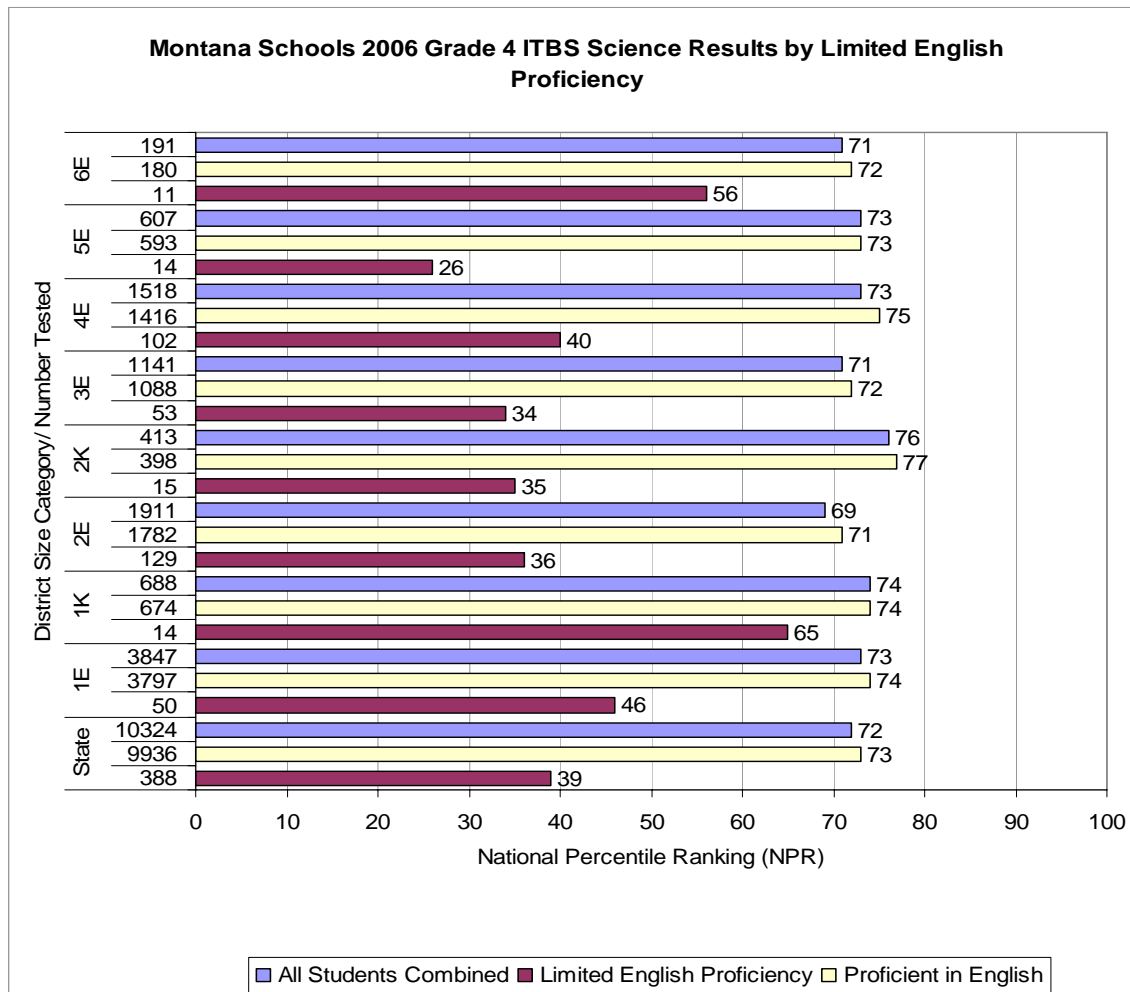
1. All students
 - The Science NPR for all Montana grade 4 students is 72%.
2. American Indian students
 - Statewide, the NPR for American Indian students is 53%, two percentage points above 2005. That number is relatively stable across the state with most district size categories plus or minus 1-6 percentage points except 1K, 2K, and 5E where the number of students tested is too small for comparisons.
3. White students
 - Statewide, the NPR for White students is 75%, one percentage point above 2005. That number is stable across the state with all district size categories plus or minus 1-2 percentage points.
4. Comparisons
 - Statewide, White students scored 22 percentage points above American Indian students, 75% and 53% respectively.

Chart 4.4 SC



1. All students
 - The Science NPR for all Montana grade 4 students is 72%.
2. Students participating in free/reduced lunch programs
 - Statewide, the NPR for students participating in free/reduced lunch programs is 63%, one percentage point above 2005. That number is stable with most district size categories plus or minus 2-6 points except 2K which averaged 72%.
3. Students not participating in free/reduced lunch programs
 - Statewide, the NPR for students not participating in free/reduced lunch programs is 77%, one percentage point above 2005. . That number is stable with all district size categories plus or minus 1-5 points.
4. Comparisons
 - Statewide, students not participating in free/reduced lunch programs scored fourteen percentage points above participating students, 77% and 63% respectively.

Chart 4.5 SC



* To protect privacy, no results will be reported where the count of test takers is less than 10.

1. All students
 - The Science NPR for all Montana grade 4 students is 72%.
2. Students with limited English proficiency (LEP)
 - Statewide, the NPR for LEP students is 39%, four percentage points above 2005. The NPR scores vary among school size categories because of the wide variation in the number of LEP students tested.
3. Comparisons
 - Statewide, all Montana students scored 33 percentage points higher than limited English proficient students, 72% and 39% respectively. That number varies among school size categories because of the wide variation in the number of LEP students tested.